

WASTEMAN

Report form research on the use effective microorganisms (EM)

We conduct further research on the use of effective microorganisms (EM) for the efficient decomposition of organic waste. We are waiting for bacteria to do their job and collecting samples for analysis in the meantime. Preparation of samples for analysis is a necessity, without exception.



Photo 1. The prism treated with EM.

Photo 2. Preliminary separation of rocks and glass before grinding the compost sample.

Based on the results of previous research, we found that municipal organic waste can be a substrate for the production of methane. We are working on methods for the pretreatment of model municipal waste in order to increase the efficiency of biogas production. Research is still ongoing, moreover biogas yields look very promising. We also plan to investigate real samples from the landfill.

In our studies we often use model organic waste to represent the real waste composition and to enable understanding of complex fermentation processes.

The residue after fermentation of such waste is rich in macro and micronutrients, which are an excellent fertilizer for plants. We convert organic substances into methane, then we will prepare an organic fertilizer from residue, which will be used in our fertilizing experiments.



Photo 3. Preparation of model organic waste for production of organic fertilizer



Photo 4. Waste before methane fermentation